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Fish Creek Complex Wild Horse Gather
Environmental Assessment NV062-EA05-04

Fish Creek HMA, June 2003

Table of Contents

Fish Creek Complex Wild Horse Gather Environmental Assessment NV062-EA05-04

1. Background Information

The purpose of this Environmental Assessment (EA) is to evaluate the impacts associated with completion of a wild horse gather within the Fish Creek Complex to achieve the Appropriate Management Level (AML) and restore a thriving natural ecological balance to the range. This EA will also assess the impacts of implementing fertility control to mares released back into the Little Fish Lake HMA/WHT following a gather operation.

Description of the proposed gather area

The majority of the Fish Creek Complex is located south of Eureka, Nevada and extends approximately 70 miles south of U.S. Highway 50 in Eureka and Nye Counties, within the jurisdictional boundary of the Battle Mountain Field Office (BMFO) and Tonopah Field Station (TFS) of the Bureau of Land Management (BLM). The gather area also falls within the jurisdictional boundary of the Austin-Tonopah Ranger Station of the U.S. Forest Service (USFS), Humboldt-Toiyabe National Forest.

The Fish Creek Complex gather area includes the following BLM wild horse Herd Management Areas (HMAs), USFS Wild Horse Territories (WHTs), and "horse-free" grazing allotments:

Fish Creek HMA	North Monitor HMA
Little Fish Lake HMA/WHT	Sevenmile HMA/Butler Basin WHT
BLM Hicks Station Allotment	USFS Morey Allotment
BLM Snowball Ranch Allotment	USFS Hot Creek Allotment

The proposed gather area is in excess of 800,000 acres. Few physical boundaries exist between the HMAs/WHTs to restrict regular interchange and movement, therefore the area is managed as a Complex. The BMFO is acting as the lead office in the development of this EA and Gather Plan. Refer to Maps 1-2, for HMA/WHT boundaries, livestock grazing allotments and gather area.

Appropriate Management Level (AML)

The following table displays the AMLs that have been established for the HMAs and WHTs within the Fish Creek Complex.

Table 1. Established AML by Allotment.

HMA/WHT	Allotment	Decision	AML (wild horses)
Fish Creek HMA	Arambel (BLM)	FMUD[1] 2004	32-54
	Fish Creek Ranch (BLM)	FMUD 2004	45-75
	Lucky C (BLM)	FMUD 2004	25-42
	Ruby Hill (BLM)	FMUD 2004	5-9
Sevenmile HMA/Butler Basin WHT	Sevenmile (BLM)	FMUD 2004/USFS Decision 2003	60-100
	South Monitor C&H (USFS)		
	Monitor C&H (USFS)		
	North Monitor C&H (USFS)		
	Horse Heaven C&H (USFS)		
	Whiterock C&H (USFS)		
	Sweeny Wash (BLM)	FMUD 2004	0
North Monitor HMA	Willows Ranch (BLM)	FMUD 1994	8
Little Fish Lake HMA/WHT	Wagon Johnnie (BLM)	Consent Decision, 1992	132
Horse Free	Hicks Station (BLM)	NA	NA
	Snowball Ranch (BLM)	NA	NA
	Hot Creek (USFS)	NA	NA
	Morey (USFS)	NA	NA

The AMLs established through FMUDs were determined to be the level of use by wild horses, which would provide for a thriving natural ecological balance and prevent deterioration of the range. The AMLs were also determined to be the levels, which would provide for viable populations within the capacity of the habitat to provide forage and water. In the case of the Little Fish Lake HMA/WHT, this level was determined by an Administrative Law Judge (ALJ). AMLs determined through FMUDs were determined following the collection, analysis, and interpretation of many years worth of monitoring data, which included precipitation, use pattern mapping, trend, production and census/inventory. In many cases, the AML was determined through carrying capacity analysis.

Where an AML range was established for the HMA/WHTs within the Complex, the upper number represents the maximum population for which thriving natural ecological balance would be maintained. The lower range represents the number of animals to remain in the Complex following a wild horse gather in order to allow for an anticipated four-year gather cycle, and prevent the population from exceeding the established AML between gathers. "We interpret the term AML…to mean that "optimum number" of wild horses which results in a thriving natural ecological balance (TNEB) and avoids a deterioration of the range" (109 IBLA 119 API 1989).

The Appropriate Management Levels (AMLs) for the allotments within the Fish Creek HMA were established through the Final Multiple Use Decision (FMUD) issued by the BMFO September 27,

1 Final Multiple Use Decision (FMUD)

2004 following the analysis of monitoring data and completion of the Fish Creek Complex Evaluation and Rangeland Health Assessment and EA #NV062-EA04-69. The total AML for the HMA was established as a range of 107 to 180 wild horses year round.

The AML for the Butler Basin WHT and Seven Mile HMA was established by the Wild Horse and Burro Management Decision for the Butler Basin Wild Horse Territory issued by the Austin-Tonopah Ranger District on December 19, 2003, and through the FMUD for the Sevenmile Allotment issued by the BMFO on January 16, 2004. These decisions were issued following the analysis of monitoring data and completion of the Sevenmile Allotment Evaluation and Rangeland Health Assessment, and EA # NV062-EA03-66. This AML was established as a range for the management of 60-100 wild horses within the Sevenmile HMA and Butler Basin WHT year round. The Sweeney Wash Allotment is also located within the Sevenmile HMA. The AML had previously been established at 0 wild horses. This AML was re-affirmed in the Sweeney Wash Allotment FMUD issued by the BMFO August 18, 2004. The AMLs for the Fish Creek HMA and Sevenmile HMA/Butler Basin WHT are current, valid, based on the recent analysis of data, and will be re-assessed in future years when additional monitoring data becomes available.

The FMUD for the Willow Ranch Allotment signed May 18, 1994 established an AML of 16 wild horses for six months within the North Monitor HMA. This AML equates to an average of 8 animals year round. The AML was established in this manner due to the Kelly Creek WHT adjacent to the North Monitor HMA, and the need to recognize the two adjacent areas as one management unit. The USFS currently does not have an AML established for the Kelly Creek WHT. The AML for the North Monitor HMA will be re-evaluated in future years in conjunction with the USFS Kelly Creek WHT. Additional data has not been collected in the Willow Ranch Allotment since 1992 that would suggest the current AML need adjustment.

The AML for the Little Fish Lake HMA/WHT was established through stipulated agreement (Consent Decision) between BLM, E. Wayne Hage, Colvin and Son Cattle Co., and Russell Ranches through the Department of the Interior Office of Hearings and Appeals, Hearings Division. The Consent Decision signed by Administrative Law Judge David Torbet on May 11, 1992, stated in part:

> "The following numbers of wild and free-roaming horses are the maximum numbers that permit a thriving ecological balance of the uses and resources upon the following allotment(s):"
>
> | Allotment | Maximum No. of Horses |
> |---|---|
> | Wagon Johnnie (Little Fish Lake HMA) | 132 |

Utilization data collected since 1992 indicates that the AML is valid and that when exceeded, utilization levels exceed acceptable levels. This AML may be re-evaluated in future years in conjunction with an evaluation of the Wagon Johnnie Allotment.

Hicks Station, Snowball Ranch, Morey, and Hot Creek Allotments have never been identified as Herd Areas or for long-term management of wild horses. These allotments are considered outside wild horse HMA/WHT boundaries and are to be managed as horse-free areas.

Estimated Wild Horse Populations

BLM has conducted many gathers throughout the Complex since the passage of the Wild Free Roaming Horses and Burros Act in 1971. A total of 3,397 wild horses have been gathered through eleven gathers documented since 1980. The most recent comprehensive census flight was conducted by the BLM in February 2002. At that time, a helicopter census of the entire Complex was completed. Refer to Appendix A for detailed information. The average annual rate of increase utilized by the Battle Mountain Field Office and Tonopah Field Station is 16-17.5% annually. Based upon these rates, the current estimated populations are tabulated and displayed in the following table.

Table 2. 2005 Estimated Wild Horse Populations

HMA / WHT	AML (wild horses)	2005 Population Post Foaling
Fish Creek HMA	107-180	383
Sevenmile HMA/Butler Basin WHT	60-100	428
North Monitor HMA	8	74
Little Fish Lake HMA/WHT	132	291
Horse Free Hicks Station Allotment	NA	19-59
Snowball Ranch Allotment	NA	38-59
Morey Allotment		30
Hot Creek Allotment		20
Total	**307-420**	**1,283-1,344**
% of AML	**--**	**305-438%**

A helicopter flight of the Kelley Creek WHT and Butler Basin WHT was conducted in September 2005 by USFS personnel. During these flights, a total of 49 wild horses were observed inside of and in proximity to the Kelly Creek WHT/North Monitor HMA, and 221 within or in proximity to the Butler Basin WHT.

1.1. Purpose and Need for Action

The purpose of the Proposed Action is to achieve a thriving natural ecological balance, achieve wild horse AML, remove wild horses from horse-free areas, collect information on herd characteristics, determine herd health, maintain sustainable rangelands, and maintain a healthy and viable wild horse population.

As indicated in the above table, population for the Complex summer 2005 is estimated to be 1,283-1,344 wild horse, which exceeds the established AML range of 307-420 wild horses. Through the interdisciplinary evaluation process and analysis of monitoring data, it was determined that when wild horse populations exceed the established AML, utilization levels exceed management objectives, leading to over-utilization of rangeland vegetation and degradation of the rangeland resources.

The current population of wild horses in the Fish Creek HMA and Sevenmile HMA/Butler Basin WHT are negatively impacting rangeland vegetation condition and riparian resources as indicated by

monitoring data and field observations. Livestock permittees have reduced animals and modified grazing systems in response to the utilization by wild horses.

The wild horse population within the Little Fish Lake HMA/WHT exceeds the AML established by an ALJ through stipulated agreement. Additionally, utilization by wild horses is impacting the vegetation resources and has resulted in reductions of livestock numbers and modifications to the grazing system. Wild horses have moved outside of HMA boundaries into the Morey and Hot Creek Allotments in response to the population size within the WHT/HMA.

The wild horse population in the North Monitor HMA has resulted in utilization of the Jackrabbit Pasture that precludes the livestock permittee from using it. Wild horses are also moving outside of the HMA boundaries into areas that they have never moved into before as a result of the increasing population. Hicks Station and Snowball Allotments are experiencing heavy utilization of meadow complexes and springs by wild horses.

Utilization exceeds acceptable levels, and damage to the range, riparian areas, and meadow complexes is currently occurring throughout the Complex as a result of the current level of wild horses which exceeds the established AML. Additionally, emergency conditions exist in portions of the Complex due to lack of available water for wild horses. The current population of wild horses within the Complex is exceeding the capacity of the habitat to sustain wild horse use.

The proposed wild horse gather is needed to remove excess wild horses in order to achieve a thriving natural ecological balance between wild horse populations, livestock, wildlife, rangeland vegetation, and water availability; and protect the range from further degradation by wild horses. The implementation of fertility control as identified for the Proposed Action would slow the growth rates of the Complex and increase the time before another gather is required. As a result, wild horses would be disturbed by gather activities less frequently, herd social structure would be maintained, and resource objectives may be achieved.

Section 3 (b) (2) of the Wild Free-Roaming Horses and Burros Act (PL 92-195) as amended states that "Where the Secretary determines . . .that an overpopulation exists on a given area of the public lands and that action is necessary to remove excess animals, he shall immediately remove excess animals from the range so as to achieve appropriate management levels. The requirement for the authorized officer to remove excess animals immediately is also included in 43 CFR (Code of Federal Regulations) 4720.1.

1.2. Issues

Through the evaluation process and consultation with the interested public, the following issues have been identified:

- Current population levels of wild horses are causing damage to rangeland vegetation and riparian areas within the Complex.
- Wild horses have become established outside of HMA boundaries.
- The current population of wild horses exceeds the established AMLs.
- Emergency conditions exist for wild horses in the Fish Creek HMA due to a lack of perennial water sources.

- Emergency conditions could exist in the Sevenmile HMA/Butler Basin WHT in the future due to the lack of available forage in the winter use areas.
- Because of the contiguous nature of the HMA/WHTs involved, and the inherent movement of wild horses between the HMA/WHTs, this area needs to be managed as a Complex for the purposes of gathers, census and other applicable activities relating to the management of wild horses.

1.3. Conformance with Existing Land Use Plans

The Proposed Action is in conformance with existing Resource Management Plans (RMPs), and Record of Decisions (ROD) for the HMA/WHTs associated with the Fish Creek Complex.

Battle Mountain Field Office

The Proposed Action is in conformance with the Shoshone-Eureka Resource Area Management Plan (RMP) Objectives (Shoshone-Eureka RMP Record of Decision dated 1986 and Shoshone-Eureka RMP Amendment, Record of Decision dated 1987).

Wild Horse & Burro Management Objectives:

1) To manage viable herds of sound, wild horses in a wild and free roaming state.
2) To initially manage wild horse populations at existing numbers based on the 1982 aerial counts and determine if this level of use can be maintained.
3) To manage wild horses within the areas which constituted their habitat at the time of the Wild and Free-Roaming Horse and Burro Act became law in 1971.

Tonopah Field Station

The Proposed Action is in conformance with the Tonopah Resource Management Plan (RMP) Record of Decision dated 1997. Pertinent excerpts from that document are as follows:

Objective:

To manage wild horse and/or burro populations within Herd Management Areas at levels which will preserve and maintain a thriving natural ecological balance consistent with other multiple-use objectives.

1.a. Mange wild horses and/or burros in 16 HMAs.

1.b. Manage wild horses and/or burros at appropriate management level (AML) or interim herd size (IHS) for each HMA . . . . Future herd size or AML within each HMA will be adjusted as determined through short-term and long-term monitoring data methods as outlined in the *Nevada Rangeland Monitoring Handbook* and BLM Technical References.

2. When the AML is exceeded, remove excess wild horses and/or wild burros to a point which may allow up to three years of population increase before again reaching the AML.

Humboldt-Toiyabe National Forest, Austin-Tonopah Ranger District

The Proposed Action is in conformance with the Toiyabe National Forest Land and Resource Management Plan, June 23, 1986, which identified the Dobbin Summit[2], Kelly Creek and Butler Basin areas as Wild Horse Territories (WHTs).

1.4. Relationship to Statutes, Regulations, Policy, Plans or Other Environmental Analysis

The Proposed Action is in conformance with the Wild Free-Roaming Horses and Burros Act of 1971 (Public Law 92-195, as amended) the Code of Federal Regulations (CFR) at 43 CFR §4700 and 36 CFR Chapter II, Part 222, Subpart B, and policies.

This EA analyzes the impacts of gathering wild horses, which has been analyzed previously through numerous Gather Plan/Environmental Assessments issued by the Battle Mountain Field Office and Tonopah Field Station. In addition, several Multiple Use Evaluations, Rangeland Health Assessments, and EAs have been completed in the process of establishing AML for wild horses. This EA tiers to these existing documents and will incorporate relevant portions of the EAs, Gather Plans and Evaluations, Final Multiple Use Decisions (FMUDS) by reference, where applicable. These documents include the following:

- *Fish Creek Complex Final Multiple Use Decision, September, 2004,*
- *Fish Creek Complex Evaluation and Rangeland Health Assessment, EA #NV062-EA04-69, August, 2004,*
- *Fish Creek Complex Evaluation and Rangeland Health Assessment, June, 2004,*
- *Diamond Mountain Range Complex Wild Horse Gather EA #NV062-EA04-13, January 2004*
- *Sevenmile Allotment Final Multiple Use Decision, January, 2004,*
- *Sevenmile Allotment Environmental Assessment EA #NV062-EA03-66, July, 2003*

2 The Dobbin Summit WHT is located south of Butler Basin and west of Little Fish Lake WHT. During the most recent census flights conducted in 2002, and 2004, no wild horses were observed within the WHT.

- *Sevenmile Allotment Rangeland Health Assessment, July, 2003,*
- *Hicks Station and Snowball Ranch Rangeland Health Assessment EA #NV062-EA04-10, September, 2004*
- *Hicks Station and Snowball Ranch Rangeland Health Assessment, September, 2003*
- *Callaghan Herd Management Area Wild Horse Gather Plan and Environmental Assessment # NV062-EA02-41, May, 2002,*
- *Roberts Mountain Herd Management Area Wild Horse Gather Environmental Assessment # NV062-EA01-17, February, 2001,*
- *Fish Creek HMA Wild Horse Removal Plan and EA# NV062-EA-00-64, August, 2000,*
- *Little Fish Lake HMA and WHT Gather Plan and EA# N65-EA98-03, 1998,*
- *Fertility Control in Un-adoptable Wild Horses, EA# NV062-EA98-005, December, 1997,*
- *Willow Ranch Allotment Final Multiple Use Decision, May 1994,*
- *Willow Ranch Allotment Evaluation, January, 1994.*

The Humboldt-Toiyabe National Forest, Austin-Tonopah Ranger District and the BLM Battle Mountain District operate under a 1984 Memorandum of Understanding (MOU) for the coordinated management of wild horse and burro herds in HMAs and WHTs that occupy lands administered by both agencies. The MOU establishes that the Butler Basin WHT, Dobbin Summit WHT, and Sevenmile HMA will be managed as one management unit, and that the North Monitor HMA and Kelly Creek WHT will be managed as one management unit.

The Proposed Action of attaining AML is consistent with the Standards and Guidelines for Rangeland Health as developed by the Northeastern Great Basin and Mojave/Southern Great Basin Area RACs, Management Guidelines for Sage Grouse and Sagebrush Ecosystems In Nevada (BLM, 2000), Guidelines to Manage Sage Grouse Populations and Their Habitats (Connelly et. al. 2000) also known as the Western Association of Fish and Wildlife Agencies (WAFAWA) Guidelines for Sage Grouse Management, the Wild Horse Strategy to Achieve Healthy Lands and Healthy Herds (BLM, 2001), Wild Horse Revised Nevada Tactical Plan (BLM, 2001), and the Strategic Plan for Management of Wild Horses and Burros on Public Lands (BLM, 1992).

2. Description of the Proposed Action and Alternatives

The following section details the Proposed Action and Alternatives that will be analyzed in this EA, as well as alternatives considered, but not carried forward for analysis. The following Alternatives will be analyzed:

Alternative 1: (Proposed Action): Gather to low range of the AML[3] and implement Fertility Control
Alternative 2: Gather to low range of the AML without Fertility Control
Alternative 3: No Action Alternative (No Wild Horse Gather)

Alternatives 1 and 2 were developed to achieve the established AML, remove excess animals from the range to prevent further deterioration to the range and ensure the long-term success of the HMAs

3 Fertility control would be implemented in the Little Fish Lake HMA/WHT and the Sevenmile HMA/Butler Basin WHT.

within the Complex. Fertility control will be analyzed to assess the effectiveness of slowing population growth in comparison to not implementing fertility control. The No Action Alternative is in violation of the Wild Free-Roaming Horses and Burros Act, of 1971 (PL-195, as amended) and is not in conformance with BLM or USFS wild horse and burro management requirements contained in 43 CFR §4700 and 36 CFR Chapter II, Part 222, Subpart B. The No Action Alternative would not be acceptable to the BLM, USFS or most members of the public; however, it is provided as a basis for comparison with the two action alternatives.

2.1. Actions common to both the Alternative 1 and Alternative 2

The Battle Mountain Field Office and Tonopah Field Station of the BLM; and Austin-Tonopah Ranger District of the USFS propose to complete a wild horse gather to achieve the established AML in accordance with this EA and Wild Horse Gather Plan. Refer to the attached Gather Plan for details about the procedures that would be followed.

The gather would be accomplished by helicopter drive trapping and would not occur during peak foaling season (March 1-June 30). The Fish Creek Complex could be gathered during summer 2005 (July). Because of the dense tree cover, topography, and other factors, it is possible that a summer gather would not result in achievement of the low range of AML in the North Monitor HMA, Sevenmile HMA/Butler Basin WHT, horse-free Hicks Station, and Snowball Allotments, and portions of the Fish Creek HMA. If AML were not achieved during a summer gather, a follow-up gather in fall/winter of 2005-06 would be necessary after snow cover causes wild horses to move into lower elevations where they could be successfully gathered.

The objective for a gather to be conducted under Alternative 1 (Proposed Action) and Alternative 2 would be the achievement of the low range of AML for the Complex. Where an AML range has not been previously established, the objective would be to gather 40% below the established AML to allow for 3-4 years after the gather before AML is exceeded, and prevent deterioration of the range. The goal would be to reduce the population of the Complex to approximately 189 wild horses, ensuring a genetically viable population would exist within the Complex. Additionally, the population may not exceed the upper range of the established AML (420 wild horses) until the third or fourth year in which a maintenance gather would occur based on funding, population growth and site-specific qualifiers. Due to the terrain, topography and tree cover throughout the Complex, gather efficiency would likely be reduced resulting in an estimated 224-397 wild horses remaining in the Complex rather than the goal of 189 wild horses.

The Fish Creek HMA would be reduced to 45 wild horses rather than the low range of AML (107) due to the absence of water in the north portion of the HMA (refer to Section 3.9 and Appendix A for more detailed information about this situation). Wild horses would only be released into the Fish Creek Ranch Allotment, and not the Lucky C, or Arambel Allotments. This would reduce the possibility of future emergency gathers until existing waters are evaluated, recover from drought, or additional waters are made available to wild horses.

The objective of the gather would be to gather the Sevenmile HMA/Butler Basin WHT to the low range of AML (60 wild horses). The upper range of AML would not be exceeded for 3-4 years. Through achievement of AML, rangeland and riparian health would be improved, and further resource degradation prevented. The health of the wild horse population would also be maintained, and high mortality rates associated with dehydration or starvation avoided.

Through the proposed gather, the Little Fish Lake HMA/WHT population would be reduced to 79 wild horses, which would prevent the court appointed AML of 132 of being exceed for 3-4 years, and prevent deterioration to the range associated with a population of wild horses in excess of AML.

The North Monitor HMA would be reduced to 5 wild horses to prevent the established AML (8 wild horses) from being exceeded for three to four years and prevent deterioration to the range associated with populations of wild horses in excess of AML. The Kelly Creek WHT and North Monitor HMA are to be managed as one unit; however, the USFS currently does not have an established AML for the Kelly Creek WHT portion of the unit, and therefore it will not be considered for gathering in conjunction with the Fish Creek Complex at this time.

As a priority, wild horse populations located outside of the HMA or WHT boundaries in the horse-free areas (BLM Hicks Station and Snowball Ranch Allotments/USFS Morey and Hot Creek Allotments) would be gathered and removed. No wild horses would be returned to these horse-free allotments.

The following table displays estimated populations, and gather and removal numbers for a summer 2005 gather of the Fish Creek Complex:

Table 3. Population, Gather Numbers – Fish Creek Complex, Summer 2005

HMA/WHT	2005 Estimated Population	Summer 2004/2005 Gather Numbers[4]	Summer 2004/2005 Removal Numbers	Estimate Un-gathered	Estimate Release	Post gather Population
Fish Creek HMA	383	345	338	38	7	45
Sevenmile HMA/Butler Basin WHT	428	214-342	214-342	86-214	0	86-214
North Monitor HMA	74	15-60	15-60	14-59	0	14-59
Little Fish Lake HMA/WHT	291	262	212	29	50	79
Hicks Station Allotment	19-59	19-59	19-59	0	0	0
Snowball Ranch Allotment	38-59	38-59	38-59	0	0	0
Morey Allotment	30	30	30	0	0	0
Hot Creek Allotment	20	20	20	0	0	0
Total	**1,283-1,384**	**943-1,177**	**886-1,120**	**167-340**	**57**	**224-397**

Should a follow-up gather be necessary, a gather of the Complex would consist of a complete or partial gather of wild horses remaining in the HMA/WHTs and horse-free areas as estimated in Table 3. Census flights conducted prior to the summer gather would provide data to calculate numbers of wild horses remaining after a summer gather operation. The BLM, TFS, and USFS would determine additional numbers of wild horses to be removed during a follow-up gather. Census flights conducted prior to a winter gather operation would further delineate where excess wild horses above the established AML exist within the HMA/WHTs. Adequate numbers of wild horses would be gathered and released during the follow-up gather to allow for achievement of the low range of AMLs and establishment of appropriate age structures and sex ratios. Wild horse and burro specialists would avoid selection of release animals that would favor certain age groups (such as all older animals), and to the extent possible, chose release animals that are comprised of diverse age groups, while adhering to the National Selective Removal Policy. Any wild horses remaining in horse-free areas would be removed during a follow-up winter gather operation.

Following the completion of the gather, the sex ratio goal would be 60% mares and 40% studs throughout the Fish Creek Complex. The resulting population size should allow for preservation of a near-natural sex-ratio (50/50 to 60/40 in favor of females).

Wild horse and burro specialists would select wild horses for release back into the Complex adhering to the National Selective Removal Policy (refer to Wild Horse Gather Plan) to the extent possible.

4 Estimated gather efficiency for Summer gather is 90% with exception of North Monitor 20-80%, Sevenmile HMA/Butler Basin WHT 50-80%, and horse-free allotments for which the goal is 100% removal. Gather efficiency is only an estimate developed for planning purposes, and was estimated based on the conditions of the proposed gather, results obtained in other gather areas, and the likely outcome in the Fish Creek Complex. Efficiency may be even farther reduced as influenced by upon tree cover, climate and elevation.

2.2. Alternative 1 (Proposed Action): Complete Wild Horse Gather to achieve AML and implement Fertility Control

Under the Proposed Action, authorized personnel would inoculate 100% of the mares released into the Little Fish Lake HMA/WHT with an immunocontraceptive vaccine, Porcine Zona Pellucidae (PZP), for fertility control research. Due to estimated release numbers within the remainder of the Complex and potential need for follow-up gather activities, fertility control would not be implemented in the other HMA/WHTs within the Complex. The vaccine would be administered by researchers associated with the National Fertility Control Field Trial Plan, or trained BLM/USFS personnel. Refer to Appendix B which details the methods that would be followed, as well as the monitoring plan and mandatory holding period requirements.

The efficacy for the application of the two-year PZP vaccine based on summer application is as follows:

Year 1	**Year 2**	**Year 3**	**Year 4**
Normal	94%	82%	Normal

Mares inoculated during the summer 2005 would foal normally in 2006 (year 1). Reproduction would be limited in 2007 and 2008, resuming to normal in 2009. Approximately 50 mares would be inoculated for fertility control and released into the Little Fish Lake HMA/WHT.

The implementation of the Proposed Action would reduce the frequency of gathers needed and slow the growth rate within the Complex. This would ensure a vigorous and viable breeding population, reduce stress on vegetative communities and wildlife, and increase available forage for wildlife, livestock, and wild horses.

2.3. Alternative 2: Complete Wild Horse Gather to achieve AML without Fertility Control

Under this alternative, a wild horse gather would occur to achieve the low range of the established AML within the Complex. Fertility control research would not be implemented on mares being returned to the Complex, allowing populations to increase at normal rates.

The wild horse populations would continue to increase annually until the next scheduled gather in approximately three to four years depending upon funding, population growth increases, and site-specific qualifiers.

This alternative would ensure a vigorous and viable breeding population, reduce stress on vegetative communities and wildlife, and increase available forage for wildlife, livestock, and wild horses. This alternative would reduce stress on horses associated with additional handling when applying fertility control.

2.4. Alternative 3: No Action Alternative (No Wild Horse Gather)

Under the No Action Alternative, a wild horse gather would not be conducted within the Fish Creek Complex. Wild horse populations would not be actively managed at this time, and wild horses would not be removed from horse-free areas. The current population of 1,283-1,384 wild horses would continue to increase at a rate of 17-20% annually. The AML of 307-420 wild horses would continue to be exceeded.

2.5. Alternatives Considered but Eliminated from Detailed Analysis

Fertility Control implemented on all HMA/WHTs including the Fish Creek, and North Monitor HMAs and the Sevenmile HMA/Butler Basin WHT

This alternative was considered, and not brought forward following analysis of the population modeling results. Due to the lack of water in the northern portion of the Fish Creek HMA, wild horses would be gathered from that area and no animals returned at this time. As a result, the post gather population would be 45 animals in the Fish Creek Ranch Allotment only. Population modeling completed for the estimated post gather population, indicates that the upper range of AML (180 wild horses) would not be exceeded until 2010 in a typical trial without fertility control and until 2013 with fertility control. It was determined that because of the lower population to remain after the gather that fertility control research is not warranted, practical or beneficial to the Fish Creek HMA at this time. Because the gather efficiency of the Sevenmile HMA/Butler Basin WHT and the North Monitor HMA is expected to be low during a summer gather, a follow-up gather the following winter would be likely. Due to the uncertainties of estimating the numbers of mares released, and likely hood of small numbers of mares released, fertility control was not brought forward for analysis for these areas.

Gathering to upper range of AML

This alternative was considered and not brought forward for further consideration. A post gather population size at the upper level of the AML would result in AML being exceeded following the next foaling season. This would be unacceptable for many reasons.

"We interpret the term AML within the context of the statute to mean to mean that "optimum number of wild horses which results in a thriving natural ecological balance and avoids a deterioration of the range" (109 IBLA 119 API 1989). The upper range of the AMLs established for the HMA/WHTs within the Complex represent the maximum population for which thriving natural ecological balance would be maintained. The lower range represents the number of animals to remain in the Complex following a wild horse gather in order to allow for an anticipated four-year gather cycle, and prevent the population from exceeding the established AML between gathers. "Proper range management dictates removal of horses before the herd size causes damage to the range land. Thus, the optimum number of horses is somewhere below the number that would cause resource damage" (118 IBLA 75).

Therefore, gathering to the upper range of AML, which represents the maximum population to ensure thriving natural ecological balance would result in the need to follow up with another gather within one year, and could result in overutilization of vegetation resources and damage to the

rangeland. In the case of the Little Fish Lake HMA/WHT, allowing the population to exceed the AML would violate the 1992 Consent Decision, which established the AML. For these reasons, this alternative did not receive further consideration in this document.

3. Affected Environment and Environmental Consequences

Resources listed in the following table, including the sixteen "critical elements" whose review is mandated by law or regulation, have been reviewed for the Proposed Action and alternatives. Those marked as not affected would not be impacted by Proposed Action, or are not present in the area of the Proposed Action. Discussion of expected impacts to affected resources follows the table. Direct impacts are those that result from the actual gather and removal of wild horses from the Fish Creek Complex. Indirect impacts are those impacts that occur once the excess animals are removed. Cumulative impacts result from incremental impact of the action when added to other past, present and reasonably foreseeable future actions.

Table 4. Critical Elements and Other Resources Check List

CRITICAL ELEMENTS	Present	Affected	OTHER RESOURCES	Present	Affected
ACECs	NO	NA	Fire Management	YES	NO
Air Quality	YES	YES	Forestry and Woodland	YES	NO
Cultural	YES	YES	Land Use Authorizations	YES	NO
Environmental Justice	NO	NA	Livestock Management	YES	YES
Floodplains	NO	NA	Minerals	YES	NO
Waste (Hazardous or Solid)	NO	NA	Paleontology	YES	NO
Invasive, Non-Native Species	YES	YES	Rangeland Vegetation Resources	YES	YES
Native American Cultural Concerns	YES	NO	Recreation	YES	NO
Migratory Birds	YES	YES	Socioeconomics	YES	NO
Prime or Unique Farmlands	NO	NA	Soils	YES	YES
Riparian-Wetland Zones	YES	YES	Visual Resources	YES	YES
Special Status Plant and Animal Species	YES	YES	Wild Horse and Burros	YES	YES
Water Quality	YES	YES	Wildlife	YES	YES
Wild and Scenic Rivers	NO	NA			
Wilderness (Study Area)	YES	YES			

The Affected Environment for the Fish Creek Complex gather area and analysis of Environmental Consequences relating to wild horse gathers is described in detail in the documents identified in Section 1.4. If you do not have copies of these documents, and would like one, please contact the Battle Mountain Field Office.

3.1. Air Quality

Affected Environment

The proposed gather area is located in an unclassified area in rural Nevada, and is considered in attainment of all critical air pollutants. Air pollution that does occur in the project area is in the form of particulate dust from traffic on unpaved roads and blowing dust.

Environmental Consequences

Proposed Action and Alternative 2:
The proposed gather of wild horses would temporarily impact air quality for a short duration. An increase in airborne particulates would occur from hoof action due to congregation of horses in confined areas (trap sites and holding corrals) as well as increased traffic during transportation of horses from trap sites to the holding corrals. Dust caused by a concentration of animals at the temporary gather site(s) and at the temporary holding facility would be controlled by watering the areas as needed to keep dust to a minimum. Traffic associated with the gather operations would be requested to maintain speeds low enough to ensure minimum dust levels.

No Action Alternative (No Wild Horse Gather)
There would be no impacts to air quality under the No Action Alternative.

3.2. Cultural Resources (and Paleontology)

Affected Environment

Much of the Fish Creek Complex surrounds the Eureka Historic District on three sides and include some historic sites clearly related to the development of the historic mining district in addition to prehistoric sites covering at least 10,000 years of prehistory. Sites in the Complex include mining sites, charcoal manufacturing sites and ranches/farms that developed to provided food and fodder for the mines, and habitation and task sites representing hunting and gathering subsistence.

Cultural resources and paleontology are considered within the context of multiple-use. All proposed actions are evaluated for their potential impacts to cultural resources and paleontology, and modifications or mitigation measures implemented to avoid conflicts.

Environmental Consequences

Proposed Action and Alternative 2:

There is a potential for cultural resource sites to be affected primarily through ground disturbing activities associated with construction of temporary holding facilities, and trap corrals, use of vehicles and horse trailers to transport wild horses, and hoof action by wild horses in the process of being gathered and loaded for transport. Through adherence of the SOPs, potential impacts would be minimized. Archeological clearance of trap sites, holding corrals and others areas of potential effects would occur prior to construction. If cultural resources were encountered, those locations would not be utilized unless they could be modified to avoid impacts. Due to the inherent nature of wild horse gathers, trap sites and holding corrals would be identified just prior to use in the field. As a result, Cultural Resource staff would coordinate with Wild Horse and Burro personnel to inventory proposed locations as they are identified, and complete required documentation. The BLM and USFS agencies would cooperate to complete Section 106 requirements of the National Historic Preservation Act. Because some of the disturbance areas may fall on Forest Service managed land, the Forest Service and the BLM would have an agreement in place to work under the BLM cultural resource protocol.

Potential benefits through the proposed gather would include reduced disturbance to springs, which are where archeological resources are often found. It is expected that through the proposed action, that disturbance to springs and riparian areas as a result of an overpopulation of wild horses would decrease, thus reducing potential impacts to cultural resources by wild horses at these locations.

No Action Alternative (No Wild Horse Gather):
Impacts to cultural resources would be expected to continue at the same level as in the past.

3.3. Invasive, Non-Native Species

Affected Environment

Some invasive plant, noxious weed, and pest inventory has been completed throughout the Complex, and some treatment of invasive species has been completed in limited areas. At this time, the following weeds and pests are either known or suspected to occur within the Complex:

Scientific Name	Common Name
Cardaria draba	Hoary cress (low white top)
Carduus nutans	Musk thistle
Onopordum acanthium	Scotch thistle
Delphinium L.	Larkspur (Geyer, Low & Duncecap)
Centaurea biebersteinii	Spotted knapweed
Acroptilon repens	Russian knapweed
Halogeton glomeratus	Halogeton

Invasive weeds typically establish in disturbed and high traffic areas. Any surface disturbance activity can create a potential environment for invasive species.

Environmental Consequences

Proposed Action and Alternative 2:

The proposed wild horse gather may result in the direct spread of existing populations of invasive non-native species. Precautions would be taken prior to setting up trap sites and holding facilities to avoid areas where high concentrations of invasive non-native species exist to lessen the chance of invasion or spread. The Contracting Officers Representative (COR), Project Inspector (PI), or other qualified specialist would examine proposed holding facilities and traps sites prior to construction to determine if noxious weeds were present. If noxious weeds were found, a different location would be selected.

Over-utilization of native vegetation and ground disturbance may provide the greatest opportunity for invasive non-native species to increase. Indirect impacts would be related to wild horse population size associated with the implementation of the Proposed Action and/or Alternative 2. Invasive non-native species can increase with overuse of the range by grazing animals or through surface disturbance. Maintenance of healthy populations of native perennial plant species and communities minimizes the establishment of invasive non-native weeds. The Proposed Action would provide the greatest opportunity for healthy plant communities and thus provide the lowest potential for invasive non-native species. The opportunity for improvement decreases with increased wild horse population. It is expected that implementation of the proposed wild horse gather would result in improved condition of native rangeland and riparian areas. As a result, the risk of invasion by invasive species across the Fish Creek Complex would be reduced, as these species are more likely to invade degraded rangeland and disturbed sites.

No Action Alternative (No Wild Horse Gather):

Invasive species would continue to exist and spread at current rates. Wild horse AML that would result in improved health of vegetation resources would not be achieved. Rangeland vegetation that is currently in low ecological status or is disturbed would be vulnerable to invasive weeds.

Native rangeland resources would be subject to continued increases in the populations of wild horses. High populations of wild horses would result in heavy and severe utilization of the vegetation. Current infestations of invasive weeds would be expected to spread and continue to increase as a result of degradation by wild horses.

3.4. Livestock Management

Affected Environment

The Fish Creek Complex includes portions of 17 livestock grazing allotments administered by the BMFO, TFS, and USFS within Eureka and Nye Counties.

Table 5. Allotments within the Fish Creek Complex Gather Area

HMA/WHT	Allotment (BLM unless noted otherwise)
Fish Creek HMA	Arambel
	Fish Creek Ranch
	Lucky C
	Ruby Hill
Sevenmile HMA/Butler Basin WHT	Sevenmile
	Sweeney Wash
	South Monitor C&H (USFS)
	Whiterock C&H (USFS)
	Horse Heaven C&H (USFS)
	Monitor Winter C&H (USFS)
	North Monitor C&H (USFS)
Little Fish Lake HMA/WHT	Wagon Johnnie
North Monitor HMA	Willows Ranch
Horse Free	Hicks Station
	Snowball Ranch
	Morey (USFS)
	Hot Creek (USFS)

Many of the allotments within or adjacent to the HMA/WHTs are fenced or partially fenced. Both sheep and cattle are permitted within the allotments associated with the Fish Creek Complex. Additional information about these allotments is available in the documents referenced in Section 1.4.

Environmental Consequences

Proposed Action and Alternative 2:

The proposed gather would not directly impact livestock operations within the allotments associated with the gather area. Operations involved in removing wild horses may temporarily cause some disturbance to livestock present during the removal process. Livestock owners within the area of impact would be notified prior to removing wild horses enabling them to take precautions and avoid conflict with livestock.

Implementation of the Proposed Action or Alternative 2 would indirectly impact livestock operations by improving the quality and quantity of forage available once wild horse AML is achieved. The Proposed Action would provide the greatest opportunity for range resources to improve. Impacts resulting with implementation of the alternatives would be influenced by increases in wild horse population size.

The effects of wild horse populations on livestock, wildlife, and vegetation resources are largely functions of dietary and spatial overlap between species. Implementing and maintaining the established AML ranges identified for the Fish Creek Complex HMA/WHTs would result in a thriving natural ecological balance between wild horses and other resource values.

No Action Alternative (No Wild Horse Gather)

Without the achievement of AML, wild horse populations would continue to increase and exceed the capacity of the habitat to provide forage and water. Uncontrolled increases in the wild horse population would result in heavy and severe use of vegetation resources leading to further degradation of plant communities and susceptibility of invasive species to degraded rangeland. It is expected that high populations of wild horses would result in downward trends of key perennial species and deterioration of ecological condition. High populations of wild horses would result in poor soil stability, reduced production levels, and reduced forage availability to wildlife, livestock, and wild horses. Currently, within five of the grazing allotments associated with the Complex, permittees have needed to remove livestock, reduce overall livestock use, and/or modify grazing systems due to utilization levels by wild horses or degraded range conditions contributed to by levels of wild horses in excess of AML in conjunction with recent drought years. Under the No Action Alternative, these trends would continue and worsen as the wild horse population continues to increase on an annual basis.

3.5. Rangeland Vegetation Resources

Affected Environment

The terrain within the Complex varies from low valleys to high mountains with elevations ranging from 6,000 feet to over 10,000 feet. Vegetation types are distributed according to topography, elevation, and precipitation. Annual precipitation varies from 5 inches or less to in excess of 12-14 inches in the mountains. Some valley bottoms support salt desert shrub plant communities such as winterfat (*Krascheninnikovia lanata)* and shadscale (*Atriplex confertifolia).* Lower elevations support black sagebrush (*Artemisia nova),* Wyoming big sagebrush (*Artemesia tridentata ssp wyomingensis)* and various understories comprised of forbs and perennial grasses. Pinyon pine (*Pinus monophylla*) and Juniper (*Juniperus osteosperma)* communities (pinyon/juniper) are prevalent throughout mid and high elevations within the Complex. Cottonwood (*Populus spp.)* and aspen (*Populus tremuloides)* stands are common throughout the Sevenmile HMA/Butler Basin WHT and some high elevations within the Fish Creek HMA. Mountain big sagebrush (*Artemesia tridentata ssp vaseyana),* antelope bitterbrush (*Purshia tridentate),* snowberry (*Symphoricarpos spp.),* serviceberry (*Amelanchier spp)* and curlleaf mountain mahogany (*Cercocarpus ledifolius)* with an understory of perennial bunchgrasses are common throughout the higher elevations. The condition of the vegetation throughout the Complex varies considerably, and has been negatively impacted by current levels of wild horses to various degrees. With the exception of the Standard for Cultural Resources, none of the Standards for Rangeland Health are being met in the Sevenmile, Hicks Station or Snowball Ranch Allotments. Throughout the Fish Creek HMA, many of the Resource Advisory Council (RAC) Standards for Rangeland Health are not being met. . Wild horse populations have been determined as the causal factor for standards not being met in many cases. Refer to the Rangeland Health Assessments listed in Section 1.4 for more information.

Environmental Consequences

Proposed Action and Alternative 2:
Disturbance would occur to native vegetation in and around temporary trap sites and holding facilities due to the use of vehicles and concentration of horses in an isolated area (less than 1 acre). Trap sites and holding facility locations are usually selected in areas easily accessible to livestock trailers and standard equipment, often utilizing roads, gravel pits or other previously disturbed sites.

Removing excess wild horses from the Fish Creek Complex would prevent future over utilization of forage species and the resulting reduction in vegetative ground cover. The potential for competition among wild horses, wildlife, and livestock for forage would decrease with achievement of the established AMLs. Reduced concentrations of wild horses would contribute to the recovery of the vegetative resource. Forage utilization levels would be reduced which would result in improved forage availability, vegetation density, increased plant vigor, seed production, seedling establishment, and forage production over current conditions. Vegetation would benefit greatest with the implementation of the Proposed Action.

Through the Multiple Use Decision process, it was determined that the Appropriate Management Level of wild horses would result in utilization levels consistent with multiple use objectives. Achievement of AML would be expected to improve vegetation resources by reducing concentrated, year round grazing by high numbers of wild horses. Wild horse grazing during the critical growth season would continue to occur throughout the Complex; however, it is expected that use would be consistent with utilization objectives due to the dispersion of wild horses throughout the landscape.

No Action Alternative (No Wild Horse Gather)
The current levels of wild horses in the Fish Creek HMA, Sevenmile HMA/Butler Basin WHT, Little Fish Lake HMA/WHT, North Monitor HMA and horse-free areas are negatively impacting vegetation resources. Heavy utilization of riparian and upland vegetation by wild horses has been documented, as well as impacts to aspen communities and degraded winterfat communities as a result of high populations of wild horses in excess of the established AMLs. Many of the RAC Standards for Rangeland Health are not being met throughout the Complex.

Under the No Action Alternative, wild horses would continue to increase in population size beyond the capacity of the habitat to provide water and forage. Degradation of vegetation resources by wild horses would continue. Heavy and severe use of vegetation resources by wild horses would continue and increase, resulting in further degradation of plant communities and susceptibility to invasive species. Downward trends in key perennial species would be expected in conjunction with reductions in ecological condition and soil stability. Vegetation would also experience reduced production resulting in reduced forage availability to wildlife, livestock, and wild horses. Significant progress towards attainment of RAC Standards for Rangeland Health would not occur.

3.6. Riparian-Wetland Resources and Water Quality

Affected Environment

Riparian areas vary in abundance throughout the Complex and consist of streams, seeps, and springs. There are no known fisheries within the Complex. Riparian Condition Assessments were completed

on many of the streams, springs, and wet-meadows within the Arambel, Fish Creek Ranch, Lucky C, Ruby Hill, Sevenmile, Hicks Station, and Snowball Allotments as part of the Rangeland Health Assessments. The results of the Condition Assessments are detailed within the Rangeland Health Assessments for these allotments. In general, riparian area condition varies greatly across the Complex. During the Condition Assessment, many springs, streams and meadow complexes were rated Functional at Risk, or Non-Functional. This is especially true in the Sevenmile, Hicks Station, and Snowball Ranch Allotments. Wild horses are currently impacting riparian resources to various degrees from minimal to severe. Some of the most serious impacts are occurring within the Sevenmile HMA where severe utilization, and bank trampling is occurring. Wild horses are also seriously impacting the meadows in the Hicks Station and Snowball Allotments, and wild horse impact to riparian resources within the Butler Basin WHT has been documented through field observations by the Nevada Department of Wildlife (NDOW). Condition Assessments have not been completed within the Wagon Johnnie or Willow Ranch Allotments, or portions of the Complex administered by the USFS.

Baseline water quality has been collected at locations within the Fish Creek Ranch, Lucky C, Ruby Hill, Sevenmile, Hicks Station, and Snowball Ranch Allotments. Water quality data has not been collected within the Willow Ranch, or Wagon Johnnie Allotment or portions of the Complex administered by the USFS. The results of the water quality testing are detailed in the Rangeland Health Assessments for these allotments listed in Section 1.4. Within the allotments that baseline data was collected, the majority of the samples were consistent with the Beneficial Use Standards for Agricultural Use – Livestock and Aquatic Life – Warm Water. These standards or criteria for undesignated waters represent the highest amounts of pollutants allowable for the beneficial use listed.

Environmental Consequences

Proposed Action and Alternative 2:
The proposed wild horse gather would not have any direct impacts to riparian wetland zones or water quality within the Fish Creek Complex.

The proposed gather would indirectly impact riparian wetland zones and water quality due to decreased utilization and trampling by wild horses in these sensitive areas allowing for riparian wetland areas to improve through natural processes. Indirect impacts to riparian wetland zones and water quality would be related to wild horse population size. Implementing the Proposed Action or Alternative 2 would decrease competition for water sources and alleviate pressures exerted on riparian habitat due to wild horses congregating around these sensitive areas.

In most cases, wild horses visit water sources briefly. The exception may include large open springs or meadow complexes. High wild horse population and density of animals in relation to limited water sources may result in degradation of water sources. Achievement of AML would ensure that wild horse populations are in balance with the forage and water availability, providing for optimal dispersion of wild horses and reduction of impacts to riparian resources. Achievement of AML would ensure that short and long-term objectives are met and that improvement of riparian resources occurs.

No Action Alternative (No Wild Horse Gather)

Wild horse population size would continue to increase in excess of the established AML. Riparian areas currently rated at Proper Functioning Condition (PFC), could experience downward trends caused by utilization of riparian vegetation and browse, and trampling by populations of wild horses in excess of AML. Riparian areas rated below PFC (Functional at Risk and Non-Functional) would likely not improve, and downward trends could continue. This would be especially true in the Sevenmile HMA/Butler Basin WHT, and Hicks Station and Snowball Ranch Allotments, where wild horses are already causing degradation to riparian resources, and many riparian resources have already been rated Functional at Risk or Non-Functional.

Water quality throughout the Complex would remain variable. Most baseline samples collected through the Complex were already consistent with the Beneficial Use Standards for Agricultural Use – Livestock and Aquatic Life – Warm Water. Under the No Action Alternative, this trend would be expected to continue throughout most of the Complex.

3.7. Soils

Affected Environment

The soils throughout the Complex are highly variable and include soils comprised of clay, silt, sand, gravel, Quaternary alluvial deposits and limestone derived from lake and wind deposits. The mountains, slopes and foothills of the entire Complex involve soils derived from dolomite, limestone and various amounts of shale, sandstone (or quartzite), and silt. Biological crusts (cryptogamic or cryptobiotic) are present within the Complex and consist of algae, lichen, fungi, moss, cyanobacteria and bacteria growing on or just below the soil surface. Biological crusts are known to aid in soil stabilization, soil fertility, water infiltration, and nutrient cycling. No surveys or inventories have been completed at this time.

For more detailed information, please refer to the Soil Survey of Eureka County, Nevada (1989), the Soil Survey of Diamond Valley (1980), and the Soil Survey of Nye County, Nevada (2002) available through the Natural Resource Conservation Service (NRCS), formerly the Soil Conservation Service (SCS).

Environmental Consequences

Proposed Action and Alternative 2:

Direct impacts such as soil displacement and compaction would occur at trap sites (less than 1 acre in size) during the construction phase and gather operations. Trap sites are ideally located in areas of previous disturbance, gravel pits or along road sides. Standard Operating Procedures (SOPs) (Appendix C) would be followed to minimize impacts to soils during gather operations.

Achievement of AML and management of wild horses in balance with the capacity of the habitat would further result in improvements to vegetation communities, reduced trailing, and concentrations around water sources and promote general improvements to soils throughout areas used by wild horses. Achievement of AML would help improve or maintain biological crusts, where present due to reduced hoof action by wild horses.

No Action Alternative (No Wild Horse Gather)

Current soil disturbance trends would continue and increase as wild horse populations continue to increase. Increased disturbance to soils through trailing and concentrated use on vegetation and water resources could result in increased soil erosion and reductions in ecological status, lowered production of deep rooted perennial vegetation, reduced production of litter and reduced soil stability.

3.8. Visual Resources

Affected Environment

Public lands within the Fish Creek Complex are located within Visual Resource Management (VRM) Classes I, II, III and IV.

The Class I VRM Objective is to preserve the existing character of the landscape. This class provides for natural ecological changes; however, it does not preclude very limited management activity. The level of change to the characteristic landscape should be very low and must not attract attention.

The Class II VRM Objective is to retain the existing character of the landscape. The level of change to the characteristic landscape should be low. Management activities may be seen, but should not attract the attention of the casual observer. Any changes must repeat the basic elements of form, line, color, and texture found in the predominant natural features of the characteristic landscape.

The Class III VRM objective is to partially retain the existing character of the landscape. The level of change to the characteristic landscape should be moderate. Management activities may attract attention but should not dominate the view of the causal observer. Changes should repeat the basic elements found in the predominant natural features of the landscape. Changes caused by management activities may be evident and begin to attract attention, but these changes should remain subordinate to the existing landscape.

The Class IV VRM objective is to allow for management activities, which involve major modification of the existing character of the landscape. The level of contrast can be high dominating the landscape and the focus of viewer attention. However, every attempt should be made to minimize the impact of these activities through careful location, minimal disturbance, and repeating the basic elements of the characteristic landscape.

Man-made features in the Fish Creek Complex are mostly linear. These include bladed dirt roads, two-track roads/jeep trails, power lines, livestock fences and pipelines. Other man-made features include reservoirs, troughs, corrals and mining disturbance.

Environmental Consequences

Proposed Action and Alternative 2:

Overall, the Proposed Action and Alternative 2 would meet visual resource objectives for Class I, II, III and IV management areas.

The Proposed Actions and Alternative 2 would have indirect impacts to Visual Resources. Impacts to visual resources would be in the context of vegetation and riparian condition as affected by wild horses. Improvement in vegetation communities, reduced invasion of annual and invasive species,

increased production of key species and upward trends would have the effect of improving visual appeal throughout the Complex.

No Action Alternative (No Wild Horse Gather)
Under the No Action Alternative existing impacts to Visual Resources would continue. Currently, Visual Resource Management objectives are being met, and continuing use by wild horses would not cause changes to the character of the landscape except for indirect impacts that may occur as a result of the impacts that grazing animals have to vegetation and riparian resources.

3.9. Wilderness Study Areas (WSAs)

Affected Environment

The southeast portion of the proposed gather area includes portions of four WSAs:

Antelope Range (NV-060-231/241)	Park Range (NV-040-154)
Morey Peak (NV-060-191)	Fandango (NV-060-190)

The WSAs are located in the Park Range, Hot Creek Mountains, and Antelope Range in Nye and Eureka Counties approximately 60 miles southwest of Eureka, Nevada. The WSAs lie within the Little Fish Lake WHT/HMA, Sevenmile HMA, and horse free Snowball Ranch, Hicks Station, Hot Creek, and Morey Allotments. Refer to Map 3, which displays the WSA boundaries in relation to the proposed gather area.

The Little Fish Lake WHT/HMA involves a portion of the Fandango and Antelope Range WSAs. The Sevenmile HMA involves a portion of the Antelope Range WSA. Cherry- stemmed roads may be utilized during the course of the gather operation; however, trap sites would likely not be built within the WSA boundaries.

The Hicks Station, Snowball Ranch, Hot Creek, and Morey Allotments involve portions of the Antelope Range, Morey Peak, Fandango, and the Park Range WSAs. These allotments are not designated HMAs or WHTs and are to be managed as horse-free areas. Every effort would be made to avoid the WSAs in these areas. Because of the nature of the WSA boundaries and existing cherry-stemmed roads, it is possible that temporary traps for capture of wild horses could need to be constructed roads adjacent to WSA boundaries. In this case, temporary wings constructed of jute netting and steel posts could be placed within the WSA. The wings would be of a temporary nature and cause a minimum of surface disturbance and would meet the non-impairment standard as defined in the Interim Management Policy for Lands Under Wilderness Review, (IMP) (H-8550-1). Wings could extend 1/8-1/4 of a mile along the road or into the adjacent rangeland to allow the wild horses to be guided into the trap. Minimum tool concepts would be used for the installation and removal of any temporary wing structures within the WSA. Mechanized equipment or vehicles would not be used in the construction of the wings. Materials would be carried and constructed by hand. A Wilderness Specialist or designee would be present to ensure that only inventoried ways or cherry-stemmed roads are traveled on by vehicles within the WSA.

The IMP provides guidance for management of WSAs. The IMP addresses wild horse and burro management in Chapter III, Section E which specifically allows for the use of helicopters for the gathering of wild horses. In addition, the IMP states: “Taking into account that wild horse and burro numbers fluctuate dramatically within WSAs due to a variety of factors, the Bureau must still

endeavor to make every effort *not to allow populations within WSAs to degrade wilderness values*, or vegetative cover as it existed on the date of the passage of the Federal Land Policy and Management Act (FLPMA). Wild horse and burro populations *must be managed at appropriate management levels* as determined by monitoring activities to ensure a thriving natural ecological balance" (emphasis added).

Instruction Memo No. NV-2004-043 provides guidance for public notification procedures for proposed actions within WSAs. Per this memo, a notification letter was sent to the Wilderness mailing list maintained for the Battle Mountain Field Office, announcing the proposed wild horse gather and possible entry into WSA boundaries with trapsite wings.

Environmental Consequences

Proposed Action and Alternative 2:

The Proposed Action and Alternative 2 would not have any direct impacts to the WSAs within the Sevenmile HMA or Little Fish Lake HMA/WHT. Wild horses would be removed from the WSA using standard helicopter removal techniques. Every effort would be made to construct trap sites outside of the WSAs eliminating the need for vehicle traffic within WSA boundaries.

It is possible that wings of traps could be constructed into the WSA during the gather of the Hicks Station, Morey, Hot Creek, and Snowball Ranch Allotments horse-free areas. This situation would be of short duration and temporary in nature, and it is expected that 2-3 days would be required to gather the wild horses from these allotments. No disturbance requiring reclamation would occur within the WSA boundaries. Minimal foot traffic and hoof action by wild horses would occur in and directly adjacent to the road.

Since the proposed action excludes the use of motorized/mechanized vehicles, and the construction of trapsite wings would be temporary in nature, the non-impairment criteria would be met, and the completion of a wild horse gather would not result in any unacceptable impacts to WSA lands.

The gather operation would result in the complete removal of all wild horses within horse-free areas, and achievement of AML within the HMAs and WHTs. As a result, riparian areas and native vegetation would benefit and experience improvement, and wilderness values would be enhanced within the Antelope Range, Park Range, Morey Peak and Fandango WSAs.

No Action Alternative (No Wild Horse Gather)

The No Action Alternative would allow wild horses to continue utilizing resources within the WSAs both inside and outside of established HMA and WHT boundaries. Heavy use of vegetation and riparian areas within the WSAs would continue and increase under the No Action Alternative leading to degradation of wilderness values. Meadow complexes within the WSAs are currently being degraded by wild horses. Wild horses are exceeding the capacity to provide forage and water throughout the Complex and WSAs. The No Action Alternative would not allow for a thriving natural ecological balance, would allow wild horses to degrade wilderness values and vegetative cover, and would not be in conformance with the IMP.

3.10. Wild Horses and Burros

Affected Environment

As described in Section 1, the Fish Creek Complex gather area is comprised of four BLM HMAs, two USFS WHTs and four areas managed as horse-free. The total gather area is in excess of 800,000 acres and is located primarily south of Eureka, Nevada. The gather area spans approximately 70 miles long from north to south, and approximately 50 miles wide. Refer to Appendix A for more detailed information about the wild horses and HMA/WHTs within the Complex.

Because few geographic barriers exist to impede wild horse movement, the area is recognized as a Complex. Wild horse movement throughout the geographic area represented by the Complex boundaries has long been documented. Wild horses have been known to move north and south through the year depending upon climate, forage conditions, and water availability, as well as to the east onto the Ely District.

Wild horse populations within the Fish Creek HMA fluctuate year long as animals move through the allotments associated with the HMA in response to snow cover and water availability. Movement of wild horses between the Sevenmile HMA and Butler Basin WHT is also primarily in response to snow cover and climate. Animal distribution data obtained through census flights indicates that as many as 60-80% of the wild horses summer in the higher elevations of Butler Basin. Conversely, as many as 60-80% of the population could be located within the BLM boundaries of the Sevenmile HMA in the lower elevations during the winter months. The majority of the wild horses within the Little Fish Lake HMA/WHT are generally located within the USFS WHT, and will move throughout the HMA/WHT and into adjoining HMA/WHTs in response to climate, snow cover and human activity.

Currently, emergency conditions exist in the northern portion of the Fish Creek HMA due to lack of perennial water for wild horses. Few riparian areas and other water sources exist in the northern portion of the HMA. Drought conditions since 2000, in conjunction with high numbers of with horses have led to many of the water sources drying up, including the Coils Creek Slough (Slough Creek), which has traditionally supplied water to the wild horses through most of the summer months. An emergency gather was completed in 2000 in which 600 wild horses were removed. Water hauling was again initiated during the summer of 2004, and 55 wild horses removed under emergency conditions. As many as 50 wild horses may still be using the area. Fall rains and winter snow will provide adequate water to wild horses through the winter, however water hauling and potential emergency conditions will resume in spring 2005.

Emergency conditions could also exist in the Sevenmile HMA/Butler Basin WHT as large numbers of wild horses move onto degraded winter range during the 2004-2005 winter. Drought years have influenced the vegetation production in the southern portion of the Sevenmile HMA in addition to lack of key perennial grass species in the plant community. Little forage exists for wild horses to utilize through the winter, and emergency conditions and increased mortality rates are possible.

Wild horses throughout the Complex are moving outside of HMA/WHT boundaries and into areas never utilized previously. Wild horse movement has been documented outside of the North Monitor

HMA into the Dry Creek Allotment to the west, outside of the Fish Creek HMA, and outside of the Butler Basin WHT to the north and south.

The Hicks Station and Snowball Ranch Allotments have been impacted by wild horses for no less than 13 years. The population between the two areas now is estimated to be 59-118 wild horses. Wild horses have also moved from the Little Fish Lake HMA/WHT into adjoining USFS Morey and Hot Creek Allotments. These allotments are not designated Herd Areas, HMAs, or WHTs, and are not identified for management of wild horses.

The 2005 estimated population existing within the Complex is approximately 1,283-1,384 wild horses. The total AML for the HMAs/WHTs within the Complex is 307-420 wild horses. The current population for the Complex is 305-438% of the established AMLs. The following table displays information about the HMA/WHTs and populations within the Complex.

Table 6. Fish Creek Complex Acreages and Current Population Estimates

Gather Area	BLM Acres	USFS Acres	Total Acres	AML or Range	Summer 2005 Population Estimate (post foaling)[5]
Fish Creek HMA	252,800	0	252,800	107-180	383
Sevenmile HMA/Butler Basin WHT	97,500	53,523	151,023	60-100	428
North Monitor HMA[6]	11,820	0	11,820	8	74
Little Fish Lake HMA/WHT	28,836	89,251	118,087	132	291
Hicks Station/Snowball Ranch Allotments	51,500	0	51,500	NA	59-118
Morey Allotment	0	45,803	45,803	NA	30
Hot Creek Allotment	0	35,024	35,024	NA	20
Total	**442,456**	**223,601**	**666,057[7]**	**307-420**	**1,283-1,384**

Refer to Appendix A for more in depth information about these HMA/WHTs, as well as the Rangeland Health Assessments and Gather Plan/EAs listed in Section 1.4. The attached Wild Horse Gather Plan for the Fish Creek Complex and Standard Operating Procedures (SOPs) located in Appendix C provide complete, comprehensive gather procedures.

Environmental Consequences

Proposed Action and Alternative 2:

Impacts to wild horses under the Proposed Action and Alternative 2 would be both direct and indirect, occurring on both individuals and populations as a whole. The peak foaling period for wild horses is March 1 to June 30, and gather activities are suspended during this time. The Standard Operating Procedures (SOPs) outlined in Appendix C would be implemented to ensure a safe and humane gather occurred, minimizing potential impacts to wild horses. Individual, direct impacts to wild horses include stress associated with the gather from capture, sorting, handling, and transportation. Mortality from these impacts is infrequent but may occur in less than one half to one percent of the wild horses gathered. Brief conflicts sometimes occur among wild horses once sorted and released into appropriate holding pens. Traumatic injuries usually do not result from these conflicts in most cases; however, they do occur. Spontaneous abortion in mares as a result of stress associated with the gather occurs but is rare.

Special precautions would be taken during a summer gather to avoid heat related problems, and would include the administration of electrolytes, cooling with water and avoidance of gathering during the hottest part of the day. However, a small percentage of wild horses could experience stress from heat and dry conditions in conjunction with the gather operation, and though typically rare, death could occur as a result. During summer gathers, foals are typically young (less than 6 months of age). Summer gather operations typically result in less than one percent of orphan foals, which must be placed with a qualified adopter for care.

5 2005 populations based on the BMFO average annual rate of increase of 17.5%.
6 The Kelly Creek WHT (20,900 acres) and the North Monitor HMA are to be managed as one unit. However, because USFS AML for the Kelly Creek WHT portion has not been established, it will not be considered for this gather.
7 The actual gather area is larger than this because areas outside of HMA boundaries would be gathered.

The Proposed Action and Alternative 2 would cause some direct population impacts during or immediately following the gather. Population direct impacts occur when individuals in a band are displaced during the gather and the associated re-dispersal of individuals into bands once the wild horses are released. Observations indicate that wild horses re-orient themselves following release and return to their home ranges within 12 to 24 hours. It is also not uncommon for individual horses to re-group with others from their original band.

The effect of removing wild horses from the population is expected to have minimal impact on herd population dynamics, age structure or sex ratio, as long as the selection criteria for the removal maintains the social structure and breeding integrity of the herd. The National Selective Removal Criteria of selecting wild horses within the 5-9 year old age class for release (described in the Wild Horse Gather Plan) would be followed to the extent possible.

Due to the implementation of age-removal selection criteria during the last gather completed in 1998, the age structure of the Little Fish Lake WHT/HMA may favor older age groups. Refer to Appendix A for a complete analysis of the estimated age distribution. It is anticipated that additional horses from the younger and older age classes would need to be selected for release in order to reach AML for this HMA/WHT. A normal age structure is expected for the Sevenmile HMA/Butler Basin WHT and North Monitor HMA due to the lack of gather history, or other activities that would have influenced the age structure. The Fish Creek HMA has been gathered numerous times since 1980. Age removal criteria that required horses over age 10 to be released was implemented during the 1994 and 1998 gathers. Because neither gather was a complete gather, many wild horses remained un-gathered. As a result, the age structure is expected to only somewhat favor older age classes.

A sex ratio depicting a natural sex ratio would be established for the Complex. The resulting population size should allow for preservation of a near-natural sex-ratio (50/50 to 60/40 in favor of females). If a selection criterion leaves more studs than mares, band size would be expected to decrease, competition for mares would be expected to increase, recruitment age for reproduction among mares would be expected to decline, and size and number of bachelor bands would be expected to increase. Establishing a sex ratio of 60% mares and 40% studs would be beneficial to the population. A selection criterion which leaves more mares than studs would be expected to result in fewer and smaller bachelor bands, increased reproduction on a proportional basis with the herd, lengthening of the time after birth when individual mares begin actively reproducing, and larger band sizes.

The genetic viability and health of the Fish Creek Complex is unknown at this point. Baseline genetic data would be collected for the Fish Creek Complex wild horse population during the proposed gather. Establishing a genetic baseline for the population would allow for future monitoring of the HMA/WHTs to ensure that the genetic health of the horses would not be compromised during future gathers or other management activities.

It is not expected that genetic viability and health would be impacted by the Proposed Action or Alternative 2. Smaller, isolated populations (< 200 total census size) are particularly vulnerable when the number of animals participating in breeding drops below a minimum needed level (Coates-Markle, 2000). Most wild horse herds sampled have high genetic heterozygosity, genetic resources are lost slowly over periods of many generations, and wild horses are long-lived with long generation intervals (Singer, 2000). Blood samples from three other HMAs managed by the BMFO

have been evaluated for genetic data. The results of two of those areas have been received (the third is still being processed and will be received late winter 2005). The results of the analysis indicate high genetic variability/diversity with no indication of inbreeding. There are no indications that the genetic variability/diversity would not be high within the Fish Creek Complex as well.

Direct and indirect impacts to wild horses as a result of implementation of a wild horse gather are further detailed in the Gather Plans/EAs listed in Section 1.4.

Achieving the established AML within the HMA/WHTs would allow forage and water resources to improve, thereby improving the habitat within the Complex for the wild horses and other users. Improved range condition and increased forage availability would promote healthy viable, self-sustaining populations of wild horses able to achieve the genetic potential of the herd. Achieving the established AMLs throughout the Complex would result in a thriving natural ecological balance between wild horses and other resource values and avoid deterioration of the range. Managing wild horse populations in balance with the habitat and other multiple uses through achievement of AML would ensure that the populations are less affected by drought or other climate fluctuations, and that emergency gathers are either avoided or minimized, thus reducing stress to the animals.

During the proposed gather, wild horses would be removed from outside HMA/WHT boundaries in areas managed as horse-free. Removal of animals from these horse-free areas would comply with 43 CFR 4710.4 and the Wild Free Roaming Horses and Burros Act.

Proposed Action (Fertility Control) compared with Alternative 2 (No Fertility Control)
Under the Proposed Action an estimated 50 mares released into the Little Fish Lake HMA/WHT would be treated with immunocontraception. The procedures to be followed for the implementation of fertility control are detailed in Appendix B.

Each mare to be released would receive a single-dose of the two-year PZP contraceptive vaccine. When injected, PZP (antigen) causes the mare's immune system to produce antibodies and these antibodies bind to the mare's own eggs, and effectively block sperm binding and fertilization (ZooMontana, 2000). PZP is relatively inexpensive, meets BLM requirements for safety to mares and environment, and can easily be administered in the field. Also, among mares, PZP contraception appears to be completely reversible, and to have no ill effects on ovarian function if the mare is not contracepted for more than 3 consecutive years.

This one-shot application, applied at the capture site, would not affect normal development of the fetus, hormone health of the mare or behavioral responses to stallions, should the mare already be pregnant when vaccinated (Kirkpatrick, 1995). The vaccine has also proven to have no apparent effects on pregnancies in progress, the health of offspring, or the behavior of treated mares (Turner, 1997). Summer inoculation efficacy is estimated to be 94% in year two and 82% in year three, with return to normal fertility in year four.

Mares receiving the inoculation would experience slightly increased stress levels from increased handling while being inoculated and freeze branded. There would be additional impact to animals at the isolated injection site following the administration of the fertility control vaccine. Injection site injury associated with fertility control treatments is extremely rare in treated mares, and may be related to experience of the administrator. The injection would be controlled, handled, and

administered by a trained BLM/USFS employee, researcher, or veterinarian. Any direct impacts associated with fertility control are expected to be minor in nature and of short duration. The mares would quickly recover once released back to the HMA.

Population wide indirect impacts would not appear immediately as a tangible effect and are more difficult to quantify. Impacts involve initial reductions in short term fecundity of a large percentages of mares in a population, increasing herd health as AMLs are achieved, and potential genetic issues regarding controlling contributions of mares to the gene pool, especially in small populations.

The implementation of fertility control would result in an opportunity to allow increased fitness and condition of the mares released following the gather. Up to 94% of the mares treated would not foal the second year following implementation of fertility control. The potential multi-year reprieve from foaling would greatly increase overall health and fitness of the mares, as well as the health of the foals born after fertility returns.

The use of fertility control under the Proposed Action is not expected to have any long-term direct or indirect impacts to the Fish Creek Complex herd. Genetic health, long-term viability, and future reproductive success of mares within the herd would be maintained with the implementation of the fertility control. Reduced growth rates would increase the interval between gathers, having overall beneficial impacts to the wild horse population, contributing to the achievement and maintenance of a thriving natural ecological balance.

Under Alternative 2, mares released back to the range would not be treated with the immunocontraception vaccine. Mares would not experience the additional stress associated with the additional handling that would be necessary to administer fertility control. Mares would continue to foal at normal rates into the future.

Population Modeling for Fertility Control and No Fertility Control:

Population modeling was completed for the Proposed Action and Alternatives 2. To analyze the possible differences that could occur to the wild horse populations between the Proposed Action and Alternative 2, the WinEquus population model was utilized. Modeling was completed to analyze application of fertility control for a gather in summer 2005. The gather scenario was also modeled without the application of fertility control. Refer to Appendix D for more detailed information about the WinnEqqus program and the results of the population modeling completed for the Complex.

The model indicates that growth rates of the Little Fish Lake HMA/WHT population could be 8-42% lower with the implementation of fertility control. Reduced growth rates from application of fertility control would result in increased intervals between gathers, and increased period for the population to reach the upper range of AML. More detailed information is displayed in Appendix D, including average median population sizes, growth rates and graphs.

Because fertility control is not being proposed for the Fish Creek, Sevenmile or North Monitor HMAs, and the Butler Basin WHT the population growth would be the same under both the Proposed Action and Alternative 2.

One objective of the modeling was to identify if any of the alternatives “crash” the population or cause extremely low population numbers or growth rates. Minimum population levels and growth

rates were found to be within reasonable levels and adverse impacts to the population are not likely. The results of the population modeling do not indicate that the implementation of fertility control under the Proposed Action or implementation of Alternative 2 would put the population at risk of catastrophic loss or "crash".

No Action Alternative (No Wild Horse Gather)

Under the No Action alternative, AML would not be achieved within the HMAs and WHTs in the Complex, and wild horses would not be removed from horse free areas outside of the boundaries of designated HMA/WHTs. There would be no active management to control the size of the population at this time, and wild horse populations would continue to increase at an average rate of 17-22% per year. This alternative would result in a steady increase in wild horse numbers, which would greatly exceed the carrying capacity of the habitat to provide adequate forage and water.

AML is the maximum population for which thriving natural ecological balance would be maintained and avoid deterioration of the rangeland. If a gather is not conducted to achieve AML, utilization by wild horses would impede vegetation recovery, further degrade rangeland condition and would not allow for sufficient availability of forage and water during drought years. Deterioration of habitat utilized by wild horses would result in deterioration of the population. As a result, the No Action Alternative would not ensure healthy rangelands that would allow for the management of a healthy, self-sustaining wild horse population.

The increasing population of wild horses would compete for the available water and forage resources. The areas closest to the water would experience severe utilization and degradation of the range resource. Uncontrolled increases in the wild horse population, depletion of forage and water resources and degradation of plant communities would result in decline of the body condition, and health of the wild horse population, ultimately resulting in catastrophic losses to the herd, which would be a function of the available forage and water and the degradation of the habitat.

Significant loss of the wild horses in the HMA/WHTs due to starvation and disease would have obvious consequences to the long-term viability to the herd. Irreparable damage to the resources, which would include primarily vegetative, soil and riparian resources, would have obvious impacts to the future of the Fish Creek Complex and all other users of the resources, which depend upon them for survival.

Wild horses are currently impacting upland range condition, riparian areas and meadow complexes within the Hicks Station and Snowball Ranch allotments which are outside of HMA/WHT boundaries and managed as horse free. The No Action Alternative would result in further degradation of range and riparian resources by wild horses outside of established HMA/WHT boundaries.

Winter range in the Sevenmile HMA is lacking key perennial grass species and exhibits extremely low production (as documented in the Sevenmile Rangeland Health Assessment). Springs are also currently being impacted by the large numbers of wild horses in the HMA. Riparian areas and aspen communities are also being impacted within the Sevenmile HMA/Butler Basin WHT. The No Action Alternative would result in further degradation of important habitat for wild horses in addition to possible emergency situation in the future as forage becomes depleted in the already degraded winter range. Further degradation of riparian areas could lead to irreparable damage to

springs that provide water to wild horses through the summer months. Loss of these riparian areas and loss of these areas as water sources would have serious impacts to future health and management of wild horses in these areas.

Emergency conditions already exist in the northern portion of the Fish Creek HMA, where two emergency gathers have taken place since 2000 as a result of lack of water and degraded vegetation, and lack of forage. Any delay in a gather of this area would result in further depletion of rangeland vegetation and the necessity to haul water to wild horses until a gather could be completed. Wild horses in this area are already in reduced body condition. Delay of a gather would result in further loss of body condition, weak foals, and increased mortality of the remaining animals.

The No Action Alternative would not be acceptable to the BLM, USFS nor most members of the public and would violate the Wild Free-Roaming Horses and Burros Act, Federal Regulations, BLM/USFS policy and Resource Advisory Council Standards and Guidelines. The BLM realizes that some members of the public advocate "letting nature take its course", however allowing horses to die of dehydration and starvation would be inhumane treatment and clearly indicates that an overpopulation of horses exists in the HMAs and WHTs. The Wild Free-Roaming Horses and Burros Act of 1971 mandates the Bureau to "*prevent the range from deterioration associated with overpopulation*", and "*remove excess horses in order to preserve and maintain a thriving natural ecological balance and multiple use relationships in that area*". Additionally, Promulgated Federal Regulations at Title 43 CFR 4700.0-6 (a) state "*Wild horses shall be managed as self- sustaining populations of healthy animals in balance with other uses and the productive capacity of their habitat*" (emphasis added).

The following table displays the projected population estimates for the No Action Alternative obtained through the WinEquus population model and reflect the most typical trial of 50 trials.

Table 7: Estimated Population Sizes with the No Action Alternative

HMA/WHT and AML Range		Estimated Population Size by Year			
		2006	2007	2008	2009
No Action Alternative	Sevenmile HMA/Butler Basin WHT (60-100)	597	645	798	823
	Little Fish Lake HMA/WHT (79-132)	393	458	581	671
	Fish Creek HMA (107-180)	502	611	681	709
	North Monitor HMA (5-8)	82	72	92	88
	Horse Free Hicks Station and Snowball Ranch Allotments[8]	162	190	223	263
	Horse Free Morey and Hot Creek Allotments	59	69	81	95
	Totals	1,795	2,045	2,456	2,649

8 BMFO average annual rate of increase was utilized for the Hicks Station, Snowball Ranch, Morey and Hot Creek Allotments. The most typical trial (of 50 trials) from the population model was utilized for all others.

3.11. Wildlife (including Migratory Birds and Sensitive Species)

Affected Environment

A variety of wildlife species inhabit the Fish Creek Complex gather area. This area supports several species of mammals, birds and reptiles. Big game species present include mule deer (*Odocoileus hemionus)*, pronghorn (*Antilocapra americana*) and elk (*Cervus elaphus nelsoni*). Fur bearing species include coyote (*Canis latrans*), bobcat (*Lynx rufus*), mountain lion (*Felis* concolor) and badger (*Taxidea taxus*). Upland species include chukar (*Alectoris chukar*), gray partridge (*Perdix perdix*), blue grouse (*Dendragopus obscurus*) and sage grouse (*Centrocercus urophasianus*). A variety of non-game mammals, birds and reptiles also exist within the Complex. More detailed information about the wildlife that occur within the proposed gather area is located within the documents listed in Section 1.4.

Any ground clearing or other vegetation-disturbing action during the migratory bird nesting season (roughly, April through August) risks a violation of the Migratory Bird Treaty Act by destroying the eggs or young of common shrub-nesting birds such as the sage thrasher, sage sparrow, Brewer's sparrow, horned lark and meadow lark. Almost every migratory bird, with the exception of a few species such as the starling and English sparrow, is covered by this law.

The Threatened and Endangered Species Act of 1973 requires BLM to analyze the impacts of all proposed activities on threatened, endangered, or proposed species. Specifically, Section 7(a)(2) of the Endangered Species Act requires that each federal agency shall, in consultation with and with the assistance of the Secretary, ensure that any action it authorizes, funds or carries out is not likely to jeopardize the continued existence of any listed species or result in destruction or adverse modification of designated critical habitat. The Bald Eagle *(Haliaeetus leucocephalus*) is the only Threatened or Endangered species that may occur within the Complex. Although these threatened birds do not commonly nest in Nevada, low densities of bald eagles winter in, and migrate through, the state from November through March.

In addition to federally listed species, BLM also protects by policy (see 6840 section of the BLM Manual), other *special status* plant and animal species. The list includes certain species designated by the state of Nevada, as well as species designated as "sensitive" by the Nevada BLM State Director. Refer to Appendix E for a list of BLM Sensitive Species whose range or migration routes are known or believed to occur within the Fish Creek Complex, and the USFS Species of Special Interest for the Humboldt-Toiyabe National Forest. A USFS Biological Evaluation for the proposed gather has been completed and is available from the Austin-Tonopah Ranger District.

Environmental Consequences

Proposed Action and Alternative 2:

Removing wild horses from the Fish Creek Complex would have minimal, short-term direct impacts to wildlife. Some wildlife present in or near trap sites or holding facilities could be temporarily displaced. To avoid disturbance to active migratory bird nests, sites containing little nesting vegetation would be selected for concentration of horses. Where this is not possible or practical, site surveys by a qualified biologist could be conducted to determine the presence of nesting birds.

The possibility exists that special status plant and animal species could be disturbed during the gather activities. However, trap sites would typically be located in areas that have previously been disturbed (i.e. gravel pits), and for short periods of time (1-3 days). Should it be determined necessary by a qualified biologist, trap sites would be inventoried prior to selection to determine the presence of sensitive species. If potential impacts could not be mitigated, these areas would be avoided.

Because gather activities are suspended during the peak foaling period for wild horses (March 1 to June 30), it is likely that the gather activities would not conflict with nesting periods for most bird species. The following avoidance measures would be utilized to minimize impacts to Sage Grouse and Ferruginous hawk:

Sage Grouse:

- Avoid active leks (strutting grounds) by 2 miles. **March 1- May 15**
- Avoid nesting and brood rearing areas (especially riparian areas where broods concentrate beginning usually in June) by 2 miles. **April 1 – August 15**
- Avoid sage grouse wintering areas by 2 miles while occupied. Most known wintering grounds in the Shoshone-Eureka Resource Area occur at high elevations and are not likely to be affected. **Dates vary with severity of winter**
- Minimize and mitigate disturbance to the vegetation in all known sage grouse habitat.

Ferruginous Hawk:

- Avoid active nests by 2 miles. **March 15- July 1**

Wildlife and wildlife habitat would be indirectly affected by the Proposed Action as it pertains to resulting improvements in resource health from current management. Reduction of the current wild horse population and achievement of the established AML provides the best opportunity for conservation, protection, and preservation of identified species and their habitats. Implementing the proposed gather within the Complex would reduce utilization on key forage species, improving the quantity and quality of forage available to wildlife and decrease competition for water sources. Riparian areas and aspen stands within the Complex provide vital habitat to wildlife. Habitat conditions in riparian areas, aspen stands and uplands are expected to improve to the benefit of most wildlife, migratory birds, and special status species. Management for healthy rangelands and achievement of RAC Standards would benefit sensitive species such as sage grouse and pygmy rabbits as well as most other wildlife species.

<u>No Action Alternative (No Wild Horse Gather)</u>
Within the Complex, rangeland vegetation currently receiving heavy, critical growth period or repeated use by wild horses, would continue to be impacted, and short-term allotment specific objectives would not be achieved.

Wild horse populations would continue to increase, exceeding the capacity of the habitat, resulting in heavy and severe use of vegetation resources, degradation of plant communities and increases of invasive species. Across all HMAs, WHTs and horse free areas, downward trends in key perennial species would be expected in conjunction with reductions in ecological condition. As this occurs, vegetation would also experience reduced production levels resulting in reduced forage availability to wildlife, livestock, and wild horses, and reduced soil stability. Important habitat utilized by sage

grouse is already being impacted by wild horses, in addition to riparian area, aspen communities and meadow complexes valuable to many species of wildlife. Further degradation would be likely, and could be irreversible if the proposed gather does not occur to achieve the AML and thriving natural ecological balance.

4. Reasonably Foreseeable Future Actions and Cumulative Impacts

Past activities within the Fish Creek Complex have included livestock grazing, mining, hunting, wild horse grazing, wild horse removal operations, invasive weed treatment, firewood cutting, fire suppression activities, development of water sources, construction of electrical transmission lines, construction of communication sites, road construction and recreation.

Since the passage of the Wild Free-Roaming Horses and Burros Act, eleven wild horse gathers have been conducted by the BLM within the Fish Creek HMA, Sevenmile HMA, and Little Fish Lake HMA/WHT. Through these gathers, 3,378 wild horses have been removed from the Fish Creek Complex.

Reasonably foreseeable activities that may occur within ten years would include the continuation of those listed above as well as the following:

- vegetation rehabilitation treatments and establishments of seedings,
- drilling wells and development of water sources,
- sage grouse habitat improvement projects,
- establishment of wildlife guzzlers,
- fuels reduction and Wildland Urban Interface projects,
- expansion of the Ruby Hill Mine,
- reclamation of Abandoned Mine Lands,
- mineral exploration,
- woodcutting and pine nut harvesting.

Any future proposed projects within the Complex would be analyzed in an appropriate environmental document following site specific planning. Future project planning would also include public involvement.

National Environmental Policy Act (NEPA) regulations define cumulative impacts as the impacts on the environment that result from the incremental impact of the Proposed Action when added to other past, present, and reasonably foreseeable future actions regardless of what agency or person undertakes such other actions (40 CFR 1508.7). Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time. Past, Present and Reasonably Foreseeable Projects have been and continue to be widely spaced throughout the Complex and over a long span of time.

Resources that would possibly be impacted cumulatively by the Proposed Action and future actions include the following:

- Rangeland Vegetation Resources

- Riparian and Wetland Resources
- Water Quality
- Soils
- Wild Horses
- Livestock Management
- Wildlife, Sensitive Species and Migratory Birds
- Cultural Resources and Native American Values
- Forestry and Woodland Resources
- Fire Management

Implementation of the proposed gather would result in reduced acreages of heavy utilization, reduced impacts to riparian areas, and other impacts associated with an overpopulation of wild horses. Overall improvement to rangeland resources including native perennial vegetation, soil stability, and wildlife habitat could occur. Vegetation diversity and ground cover would continue to be stable or improve gradually. These actions would enhance or protect surface vegetation, reduce runoff and water erosion of exposed soil and increase percolation of water into the ground. Attainment of these objectives would ensure achievement or significant progress towards achievement of the RAC Standards for Rangeland Health.

Cumulative impacts to wildlife, migratory birds, special status species from past, present, foreseeable actions result primarily from impacts to vegetation, and the resulting habitat alteration. Impacts to habitats within the Fish Creek Complex have accumulated primarily from the direct and indirect effects of livestock and wild horse grazing. The proposed gather would help to reverse cumulative impacts to most wildlife, migratory birds, and special status species. The proposed gather and other foreseeable actions would begin to offset past negative trends in habitat modification by allowing for attainment of rangeland health standards and allotment specific objectives.

The Proposed Action would result in slower growth rates of wild horse populations than Alternative 2. In the long term, this could increase the interval between gathers, and increase the period for the population to increase to the upper range of AML. An overall lower population and density of wild horses across the landscape would allow increased recovery of native vegetation that is currently degraded, as well as reduce or eliminate further degradation. Over time, the rangeland vegetation, wildlife and other users that depend on it would benefit more from the Proposed Action than from Alternative 2. Wild horses would also benefit over the long term, and into future generations. Increased interval between gathers would reduce stress on the wild horses in conjunction with gathers. Fertility control research on mares would allow for increased body condition and overall health from not bearing the energy demand of pregnancy and lactation. Future young born to these mares could be larger, healthier, and able to better achieve their genetic potential.

Past wild horse gather activities in the Fish Creek HMA and Little Fish Lake HMA/WHT have influenced age structure and sex ratios, likely causing current populations to favor older age classes, and a larger proportion of male horses compared to many herds that have never been gathered. The

proposed gather would result in age structures and sex ratios that more accurately reflect historical or natural conditions. Depending upon BLM National Selective Removal Policies, age structures and sex ratios could be maintained or modified in future gathers. During the proposed gather, efforts would be made to preserve historical characteristics of the herds, thereby sustaining these characteristics into future generations.

For both the Proposed Action and Alternative 2, in the long term, management of wild horses at thriving natural ecological balance within the capacity of the habitat to provide forage and water would lead to improved habitat condition, and healthier wild horses and increased success for future generations.

The No Action Alternative would not result in any long-term cumulative benefits to any rangeland user. Continued range deterioration and loss of water sources and riparian habitat in conjunction with any reasonably foreseeable projects or other management actions would not improve habitat for wildlife, sensitive species, or other values such as wilderness study area values, forage for permitted livestock, or recreation.

5. Suggested Monitoring

The BLM would continue to conduct the necessary monitoring to periodically evaluate the effects of livestock grazing and use by wild horses and wildlife, and determine if progress is being made in the attainment of multiple use objectives and Standards for Rangeland Health. Monitoring would be in accordance with BLM policy as outlined in the *Nevada Rangeland Monitoring Handbook* and other BLM and USFS technical references.

Monitoring in conjunction with Fertility Control
Following the implementation of fertility control, thorough census flights would be conducted in years two through four to monitor the population for effectiveness of fertility control treatment. Additionally, all pertinent field observations would be documented. Refer to Appendix B for more information.

6. Consultation, Coordination and List of Preparers

Prior to completion of this Environmental Assessment, a scoping letter dated October 25, was mailed to the interested public list for the area encompassed by the Fish Creek Complex. Additionally, a notification letter was sent to the mailing list for Wilderness/Wilderness Study Areas on October 21, 2004. The following is a brief summary of comments received.

> Tom Gardner, Permittee, Sevenmile Allotment. Support of the gather of the Complex. Vegetation resources are badly impacted by wild horses particularly in the Butler Basin WHT. Concern for wild horse health particularly during the 2004-05 winter.
>
> Brad Hardenbrook, NDOW, Las Vegas Office. Support for the gather of the Complex, particularly in the winter so that objectives can be met.

The McKay Family, Permittee, Hicks Station and Snowball Allotments. Support of the gather of the Complex. The range is incapable of supporting the current population resulting in degradation to riparian areas and upland rangeland. Recommend sterilization as a means to limit reproduction.

Cathy Barcomb, Nevada Commission for the Preservation of Wild Horses. Support of the gather of the Complex to avoid further impact to resources and protect wild horse health.

Eureka County Department of Natural Resources. Support of the wild horse gather to achieve Appropriate Management Levels, and prevent further impacts to rangeland health and livestock operations throughout the Complex.

Barbara Warner, interested public. Opposition to the proposed gather. Wild horses should not be gathered. BLM should allow nature to manage the wild horses.

Brian Beffort, Friends of Nevada Wilderness. Approval of reducing impacts caused by wild horses on the landscape, emphasis for humane treatment. Emphasize compliance with BLM Interim Management Policy for Lands Under Wilderness Review, encourage BLM to locate ground disturbing activities outside of WSA boundaries, prevent cumulative impacts to impair WSAs. Question rehabilitation efforts, invasive species proliferation, and other impacts to values and users of the WSAs.

A public tour of the Fish Creek Complex was conducted October 4, 2004 to view and discuss vegetative conditions and other issues pertaining to the proposed wild horse gather. Approximately 30 individuals were present on the tour and included representatives from BLM, USFS, and Nevada Department of Wildlife (NDOW). Also participating were grazing permittees, representatives of Eureka, Elko and White Pine Counties, Nevada State Assemblymen and the BLM Nevada State Director.

Through the multiple use evaluation process, coordination with the interested public occurred during completion of Rangeland Health Assessments for the Fish Creek Ranch, Arambel, Lucky C, Ruby Hill, Hicks Station, Snowball Ranch, Sweeney Wash and Sevenmile Allotments. Consultation occurred with NDOW, Eureka County Representatives, Permittees and other members of the interested public.

Through all consultation and coordination efforts, the BMFO, TFS and USFS have received support for the proposed wild horse gather, achievement of the established AML, and removal of animals from horse-free areas.

Fish Creek Complex Environmental Assessment, List of Preparers

Battle Mountain Field Office, BLM

John Winnepenninkx	Assistant Field Manager, Renewable Resources
Doug Furtado	Supervisory Rangeland Management Specialist
Duane Crimmins	Lead Natural Resource Specialist/Wildlife Biologist /Riparian Specialist

Shawna Richardson	Project Lead/Wild Horse and Burro Specialist
Christine Pontarolo	Environmental Coordinator
Jerrie Bertola	Rangeland Management Specialist
Mike Stamm	Wildlife Biologist
Joe Ratliff	Soil Scientist/Forester/Water Quality Specialist
Bobbie McGonagle	Cultural Resources Specialist
Janice George	Cultural Resources Specialist
Gerald Dixon	Native American Coordinator
Richard Kurtz	Invasive Weeds and Pest Coordinator
Rob Perrin	Recreation/Wilderness/VRM Specialist

Tonopah Field Station, BLM

Amy Dumas	Wild Horse and Burro Specialist
Susan Rigby	Cultural Resources Specialist

Austin-Tonopah Ranger District, USFS

Steve Williams	District Ranger/Native American Coordinator
Tom Seley	Rangeland Management Specialist
Kellie Green	Cultural Resources Specialist
Lance Brown	Wildlife Biologist

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